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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

COZAD, JULIANNE M

ART UNIT

PAPER NUMBER

3671

DATE MAILED: 10/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/772,609	Applicant(s) KASTER ET AL.	
	Examiner Julianne M. Cozad	Art Unit 3671	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6-13,15-19,23-25 and 28-31 is/are rejected.
- 7) ☒ Claim(s) 2,5,14,20-22,26,27 and 32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/5/2004</u> <u>7-9-2004</u> <i>guc</i> | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: on page 2, line 2, "throughout out", out should be deleted and on page 12, line 23, word "viz." is not understood and should be changed to be more clear.

Appropriate correction is required.

Claim Objections

2. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 30-33 have been renumbered as 29-32, respectively.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1,3,4,6,9-12 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schutt [US 1,021,379] and in view of Prairie [US 6,640,732].

With respect to claim 1, Schutt discloses a seed drill comprising a frame 1, a walking beam 7 suspended from the frame and pivotable about a first pivot point 2, a spring member connecting walking beam to the frame and movably biasing the walking beam downward relative to the frame and a first disk 9 rotatably mounted to the walking beam.

However, Schutt does not disclose use of a second disk mounted on the walking beam.

Prairie teaches use of multiple disks for multiple tasks to better control the depth of the cut. It would have been obvious to one skilled in the art at the time the invention was made to modify Schutt to include a depth gauge in order to more closely control the depth of the seed placement.

With respect to claims 3 and 9, Schutt discloses a closing disk 27 suspended from the frame by a closing disk suspension, being suspended from the frame independently of the walking beam.

With respect to claims 4, 10 and 12, Schutt discloses a plurality of closing disks 27, all of which are rotatably mounted about a single rotational axis, Figure 1.

With respect to claims 6 and 11, Schutt teaches a seed drill further comprising a plurality of walking beam assemblies spaced about an axis transverse to the direction of travel of the seed drill, wherein each of the walking beam assemblies is independently suspended from the frame, Figure 1.

With respect to claim 29, the combination of Schutt and Prairie disclose a method of forming a furrow in uneven terrain, comprising: (a) providing a walking beam having a first disk and a second disk rotatably mounted to opposite ends thereof; (b) aligning the walking beam along a direction of travel and moving the walking beam forwardly along the direction of travel over the uneven terrain while allowing the uneven terrain to pivot the walking beam about a pivot point located between the first and second disks; and (c) applying downward force to the walking beam at the pivot point and thereby maintaining both the first disk and second disk in substantially constant contact with the uneven terrain, thereby forming the furrow.

5. Claims 7 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schutt in view of Prairie as applied to claims 1 and 9 above, and further in view of Packham [US 522,329].

The combination of Schutt and Prairie discloses a seed drill as described above.

However, curvature of the disks is not specified.

Packham teaches that it is advantageous to use disks that are concave towards the center axis of a seed tool to prevent rocks and the like from clogging up the mechanism while in operation. It would have been obvious to one skilled in the art at the time the invention was made to use the disks of Packham on the seed drill of the combination of Schutt and Prairie to prevent rocks from clogging up the machine as taught by Packham.

6. Claims 8,15,30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schutt in view of Prairie as applied to claims 1,9 and 29 above, and further in view of Martin [US 5,507,351].

With respect to claims 8,15 and 30, the combination of Schutt and Prairie discloses a seed drill as described above.

However, use of only one furrowing disk is disclosed.

Martin teaches using two disks to furrow and the following method of doing so: the first to cut the ground and the second to open the ground up at the cut. Martin teaches that for rough ground, it is advantageous to use two disks to better control depth of cut into soil and to save wear and tear on the disks. It would have been obvious to one skilled in the art at the time the invention was made to use both a cutting and an opening disk of Martin on the seed drill of Schutt and Prairie to better control seed depth and to more easily cut through tough soil.

With respect to claim 31, Schutt discloses depositing the seed in the furrow through delivery shoot 8, and then rolling a closing disk 27 over the furrow to close it.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 3671

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 16-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Dreyer [US 4,407,207].

With respect to claim 16, Dreyer teaches use of a walking beam 8 upon which are mounted disks 9 and 27 around pivot point 26. An arm member 2 is attached to walking beam at the first pivot point 26 and at frame via fastener 3 at second pivot point at the top of member 7. Pivotal movement of the walking beam about the first pivot point causes upward movement of one of the first and second disks and downward movement of the other of the disks relative to the first pivot point 26. Also, pivotal movement of the arm member about the second pivot point 5 causes vertical displacement of the walking beam relative to the frame.

With respect to claim 17, Dreyer teaches the first and second disk 9 and 27 respectively, are mounted to opposite ends of the walking beam.

With respect to claim 18, Dreyer teaches the first disk is disposed adjacent the second disk.

With respect to claim 19, Dreyer teaches the outer edges of the first and second disk extend beyond the respective ends of the walking beam.

Claim Rejections - 35 USC § 103

9. Claims 23-25 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dreyer as applied to claim 16 above, and further in view of Schutt '375.

Dreyer discloses a seed drill as disclosed above.

However, Dreyer does not disclose the closing disk being independently suspended from the frame or using a plurality of closing disks.

With respect to claim 23, Schutt teaches a closing disk 27 suspended from the frame 1 by a closing disk suspension 12, the closing disk being suspended from the frame independently of the walking beam. It would have been obvious to one of ordinary skill in the art to modify the closing disk suspension Dreyer to function independently, as taught by Schutt, therefore allowing it to better stay close to the ground and adjust to changing surfaces.

With respect to claim 24, Schutt teaches a plurality of closing disks 27, all of which are rotatably mounted about a single rotational axis, see Figure 1. It would have been obvious to one of ordinary skill in the art to modify the closing disk of Dreyer to have a plurality of closing disks to more quickly plant a crop in a field.

With respect to claim 25, Dreyer teaches having an arm member 2 that is at an acute angle to half of the walking beam at any given time.

With respect to claim 28, Dreyer teaches a seed chute 31 proximate the second disk 27 and having a seed exit angled toward the first disk 9.

Allowable Subject Matter

10. Claims 2,5,14,20-22,26,27 and 32 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julianne M. Cozad whose telephone number is 571-272-6946. The examiner can normally be reached on 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on 571-272-6998. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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THOMAS B. WILL
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